Saudi Coronary Athero-Thrombotic Disease (SAUDICAT): Intra-vascular ultra-sound study of patients presenting with acute coronary syndrome design and preliminary results

Samih Lawand, Abdelfatah Elasfar, Nadir Siddiqi, Hassan Mehish, Sulman Razzak, Amal AlBanyan, Shiraz Mirza, Lamis Alshahrani, Lisette Okkels Jensen

E-mail addresses: slawand@kfmc.med.sa, Samih_lawand@yahoo.com (S. Lawand)

Background: Coronary Artery Disease in Saudis is reaching epidemic levels. The extent of Coronary Athero-Thrombosis (CAT) is yet to be studied. We present the design and preliminary results of IVUS project intended for centres with IVUS capabilities in Saudi Arabia. We aim at gathering clinical and quantitative IVUS data.

Methods: 60 pts. IVUS studies at Prince Salman Heart Center (PSHC), King Fahad Medical City reviewed. 40 of 105 runs analysed for Borderline Lesions 35 pts. Pre-Runs (PR), 67 runs 25 pts. post stenting (PS). Initial analysis done at IVUS Core-Lab Odense University Hospital Odense–Denmark, now available at PSHC. Each 1 mm slice, had separate Luminal and External Elastic Membrane (EEM) tracings, obtained 5 mm Proximal and Distal to maximal Plaque Burden.

Results: 35 pts. (28 males, mean age 54 ± 18). 27 pts. (77%) Diabetics. Forty IVUS borderline lesions runs analysed.

12 pts. (34.29%) with recent ST Elevation Myocardial Infarction (STEMI), 8 (22.86%) Non-STEMI (NSTEMI), and 15 (42.85%) Unstable Angina (UA).

Non-Diabetics had larger Luminal, Vessel Diameters, and Plaque Areas (*P* value: 0.048, 0.008 , 0.0088, 0.020), Diabetics with NSTEMI had larger Plaque Areas and Burden (*P* value: 0.0003, 0.0033). Vessels volumes non-significantly different.

Conclusion: SAUDICAT, is the first national quantitative IVUS study of CAT of Saudi pts. with ACS. Non diabetics had larger vessels, diabetics with STEMI, and NSTEMI had larger plaque areas and burdens.

We believe with the completion of this project, a Core-Lab for IVUS studies can be established in Saudi Arabia and the Middle East.

http://dx.doi:10.1016/j.jsha.2012.06.211

Impact of in-hospital recurrent ischemia event: Findings from Gulf RACE-2

Abdullah Al-Saleh, Ahmed Hersi, Khalid Al-Habib, A.A. Alsheikh-Ali, K. Sulaiman, H. Alfaleh

Background: Little in the literature is known about the long term outcome of patients with acute coronary syndrome (ACS) and in-hospital recurrent ischemic event. Accordingly; our objectives were to determine the baseline characteristics of patients, the predictors, and the long term outcome of patients with recurrent ischemia.

Methods: The population compromised 7930 enrolled in the second Gulf Registry of Acute Coronary Events (Gulf RACE-2).

Results: Out of the 7930 ACS patients, 172 (2.2%) had Re-MI during their hospital stay. Patients with Re-MI were more likely to be older (mean age 59.12 ± 13.5 vs. 56.8 ± 12.4, $P = 0.016$), had significantly higher rate of prior history of angina (48% vs. 38.2%, $P = 0.006$), and hyperlipidemia (45.2% vs. 37.3%, $P = 0.027$) than patients without Re-MI. On admission patients with Re-MI had significantly higher HR, lower systolic BP, Killip class 4 and high GRACE risk score than those without Re-MI (27.3% vs. 17.6%), (11% vs. 4.8%), (8.1% vs. 3.2%), and (31.8% vs. 21.5%, $P < 0.05$ for all comparisons), respectively. Patients with Re-MI had a higher rate of STEMI on admission than patients without Re-MI (72.1% vs. 43.9%; $P < 0.001$). Re-MI patients were less likely to receive Aspirin (94.8% vs. 98.5%, $P = 0.002$), beta blockers (95.3% vs. 74.7%, $P < 0.001$), and Statin (87.2% vs. 94.9%, $P < 0.001$) than patients without Re-MI. Coronary angiogram was less frequently performed on patients with Re-MI than patients without Re-MI (30.8% vs. 32.5%, $P = 0.036$). In hospital adverse events including HF, cardiogenic shock, VT/VF were more frequent in the Re-MI group than patients without Re-MI (44.2% vs. 12.4%), (25.6% vs. 5.3%), (7.6% vs. 2.7%; $P < 0.001$ for all comparisons) respectively. In ACS patients with Re-MI in-hospital, 30 days and 1 year were significantly higher that patients without Re-MI (23.8% vs. 4.1%), (28.1% vs. 7.7%), and (31.6% vs. 12.1%; $P < 0.001$ for all comparisons), respectively.

Conclusion: Recognizing patients at high risk of Re-MI is important as modifying the risk factors, and managing the patient aggressively may reduce the incidence of such events and the associated morbidity and mortality.

http://dx.doi:10.1016/j.jsha.2012.06.212

Social impact of Congenital Heart diseases in Saudi families

Sulaiman S. Almesned, Abdulrahman A. Almesned, Ali A. Al-Akhfash

Introduction: Chronic illness may result in a variety of stressful outcomes, families of children with congenital heart disease are not exception.

In Saudi Arabia, many public supporting groups for families with chronically ill children like diabetics or cancer patients are active and giving a great deal of help but unfortunately, non are available for families of children with severe congenital heart disease.

Our study is an effort to put this issue in focus.

Objective: To evaluate the social impact on families of patients with of congenital heart disease.

Design: Cross sectional survey.